ASPECTS REGARDING THE IMPACT OF THE "RABLA" PROGRAM AND THE "CASA VERDE" PROGRAM ON THE ECOLOGICAL CONSUMPTION IN ROMANIA

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Abstract
The modern consumer behavior has been very complex in the recent context of budgetary restrictions occurred after the global crisis, but it has also been changed and influenced by different selections of strategies in order to purchase and use the products/ services. The supply results have also been changed, according to a better response to consumer needs, specific to the new consumption cycle. The consumer reaction to the green products/ services has been highly influenced by the economic consequences. A new role of experience and adaptability of consumers could be seen as completed by anticipation strength. A more aggressive response related to the quality of products/ services on their entire life cycle, but yet quasi-ignorance in the aspects of environmental consequences it still result.
The main objective of the paper consists in offering a better understanding of the new philosophy of Romanian consumers based on different simple models of replacing generalized durable goods (GDGs) in a simple, but intuitive analytical framework.
The impact of Rabla programs over the eco-friendly products consumption within the proposed hypothesis has been strongly limited by the economic component (by the costs associated to maintenance, the energetic products consumption and the environmental taxes).

Keywords: consumer's behavior, environment, consumer's decision, generalized durable goods (GDGs)

JEL Classification: D03, D10, D62, H21

Introduction in the new philosophy of consumer behavior

The recent global crisis has severely influenced the philosophy of consumer behavior. The budgetary restrictions have reduced the consumption in general, but the main impact could

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be seen over the real estate and durable goods. These changes have been rapidly taking place, and the manufacturers were completely unprepared.

The interest of this contribution is to study the processes which influence the decision to purchase and use products, services, ideas in the context of stimulus offered by Rabla program and the budgetary restrictions. Consumer behavior includes in the decision process the new information and a dynamic understanding of consumer's fillings regarding the performance and quality of products/ services.

The consumption cycle is very complex and includes production, acquisition, consumption and disposal (recycling, depleting). From the consumers' perspective, the interest is to understand the optimal decision in order to select a product, the mechanisms that influence the consumer experience, the impact of the product on the function of future consumer's intentions and the environmental consequences. From the perspective of the producer, the focus should be more oriented on the mechanisms of adjusting the consumer's attitudes towards the price-quality ratio of the products, the impact of situational factors (time pressure, store displays) on the consumer's decision and the determinants the satisfaction index of consumers. The focus of consumers is still oriented on acquisition, as a critical phase, but the interest will be oriented also towards the links between the elements of the consumption cycle, including ecologically aspects.

The segment of consumers is generally linked to the demographic aspects (age, gender, family structure, social class, income, ethnicity and geography), but also the aspects beyond demographics (life styles). The consumer's behavior depends also on the position on the family life cycle (young single people are oriented towards recreation and only buy basic furniture, cars, equipment for vacations; young married couples without children are more oriented towards durable goods; couples with young children are less influenced by advertising and buy larger size packages, many foodstuffs, durables; older married couples are interested in travel recreation and self-education; retired people are oriented how to respond to their dramatic cut of income with focus on affection and security). Sudden changes or shocks in demographic dimensions trigger the reconfiguration of the consumption process spectrum from the consumer's perspective and the marketer's response should be more focused on these changes via a better anticipation. For example, the global crisis is responsible for a deep change regarding the structure of family expenditure. The rising of prices to resources (energy, food, for instance), in the context of reduced incomes, has trigged dramatic changes in the consumption structure. In emerging countries, the decreased spending power has increased the occurrence of basic foodstuff and the preference for cheap foodstuffs. The preference for ecological foodstuffs is strictly a prerogative of the higher income families and will continue to be an out of reach choice for average and low income families.

The proposed framework in analyzing the Romanian consumer behaviour is based on critical analysis of the conventional economic models (Grant, 1950; Dean, 1951; Sandyford, Bernolthz and Shelson, 1956; Terborgh, 1949; Clapham, 1957; Fether and Goodman, 1957; Orrenstein, 1956; Rilas, 1957; Barber 1958; Elmagharby, 1958). Based on modelling started with Markov process (Nair, 1995), Sloan (2011) proposed a series of extensions designed to include environmental costs in a multi-annual framework.

1. Aspects regarding the changing of environmental behavior

If five decades ago the focus was on pollution and energy preservation, in the context of the new concept of environmental responsibility, environmental issues have been increasingly debated and have become a source of competitive advantage. The literature on environmental issues has developed between 1980 and 1990; a well-known fact being that the world of business will become more environmental and socially sensitive in the context of the global competition (Roberts, 1995). At the beginning of the new millennium, people have focused on the issue of the ecological consumer and on the way in which the new consumer will respond to the challenges of the market. The newly introduced concept, called ecologically conscious consumers, has been analyzed particularly from the standpoint of demographic variables (age, sex, income, education, residence) and psychographic characteristics (political orientation, altruism, perceived consumer effectiveness, environmental concerns). The decision for purchasing green products/ services (Straughan and Roberts, 1999) could be analyzed in a segmentation framework based on: segment size, segment accessibility, and the simplicity of identification, the effectiveness and the segment stability. It should be remarked some contradictory trends, for example, on the one hand, the producers offer new green products, but there is still an ignorance of the pure environmental constraints, on the other hand.

In Roper Reports Worldwide 2010 the consumer behavior and the propensity toward green products are analyzed. Even though the dynamics of launching new green products has significantly risen after 2009 (from 8% in 2009 to 12% in 2010), globally only 30% of population take the environment into account in their decision and only 16% in Central and Eastern Europe. We must underline the fact that these results also include the increased price of energy resources which should normally boost the demand for more low consumption eco-friendly products. In the same document are presented the top ten global concerns in which environmental pollution/ health is situated on the fifth place and global climate change/ sustainability on the tenth place, but there is no critical mass for change. In this case, the role of green consumer education to teach and educate people to act as informed, rational and prudent consumers is essential, especially in the case of the young people segment. Environmental education in schools could be one of the most efficient instruments in order to create a new green culture.

The dynamics of the attitudes toward the environment, expressed by the Euro barometer 2010, indicates a special care for climate change, water pollution, man-made disasters, natural hazards, and the impact of chemicals, the agricultural pollution and the use of genetically modified organisms, urban problems. Even if there is an interest toward health related effects, the quasi ignorance of the analyses of causes persists.

2. The Global Green New Deal, a new paradigm on environmental protection

Although the global crisis has decreased the consumption appetite as concerns durable goods, with direct impact on economic growth, a strategy for recovery was based on the stimulus for consumption mixed with a new green attitude. The Global Green New Deal (GGND) represents a global strategy of G20 and United Nations Environment Program (UNEP) that stimulates recovery after the global crisis and the sustainability of the global economy based on green investments. The main objectives of GGND are: the creation of employment opportunities and the protection of vulnerable groups; the reduction of carbon dependency and ecosystem degradation; a robust contribution to reducing the world

poverty. In the literature it is demonstrated that investment in green incentives will generate energy savings equivalent to 45% per year and more than 20% increasing job opportunities, as compared to traditional measures (Houser, 2009). The key components of GGND are: to reduce carbon dependency of the global economy to control the temperature rise; to reduce ecological scarcity and poverty via sustainability; to reduce capital gap/ technological gap; more actively national actions for implementation. The key industries of GGND are represented by energy, transportation, construction, and materials with focus on building a green public infrastructure based on smart grid technologies, green transportation (rail transportation, electric vehicles) and a better functionality of recycling markets. The focus is on finding optimal financing schemes for innovative projects like smart grid architecture, energy storage systems, and carbon capture/ storage infrastructures. One of the most ambitious low-carbon strategy is represented by South Korea's green new deal with an investment represented by 36 billion USD (investments represent 3% of GDP for the full GND plan) over 2009 to 2012 and 1 million jobs created. This mega-project includes developing rail roads and mass transit, innovative fuel efficient vehicles, energy conservation and environmentally friendly buildings.

An innovative National program for stimulating car fleet exists in Romania, whose objective consists in pollution diminution, by rejecting as defective the old cars of high pollution degree. An amount of 55 million Euro has been allotted in 2011, the equivalent of almost 60,000 cars. In 2010, an amount of 180 million Euro was allotted, where 190,000 used cars were under cassation, and almost 63,000 new vehicles were purchased, from which about 50% of autochthonous origin. Reported to the total of vehicles of autochthonous production sold in 2010, meaning almost 93,000, it resulted that 67% of the entire production has found buyers by means of this program.

We can see that in 2010 the success rate was of about 99.5%, but the statistic data has shown that this success rate was of 65% in 2009 (with 32,000 cars under cassation, of 50,000 available volume); in 2008, a rate of success of 76% (30,400 cars under cassation of 40,000 available). During 2005, meaning the year of program launching, and 2007, the rates of success has constantly exceeded the percentage of 90% with a maximum of 2007, of 99.7%. Although, there have been registered some issues as related to the necessary time, in order to accomplish this success rate.

A comparison with similar programs of other countries, introduced as anti-crisis measures and accomplished in 2009, has shown that there have been huge differences between Romania and developed countries, including USA. For instance, the program CARS (Car Allowance Rebate System) of USA received an amount of 3 billion dollars in 2009, which has been spent in one month; 690,000 new cars were sold at that time (Toyota – 19.4%, GM – 17.6%, and Ford – 14.4%). A supplementary requirement for the program of USA was that related to the fuel consumption, which means that the cassation bonus was given depending on the car type and the consumption related to it.

For the same type of program, an amount of 5 billion Euros was allotted in 2009 in Germany, where the cassation bonus was of 2,500 Euro, for a car older than nine years. The amount was spent before the end of the year, where almost 2 millions of people beneficiated of it, and the vehicles market increased with 27%.

The Green House program aimed on improving the quality of air, water and ground, by reducing the level of pollution caused by wood and fossils fuels combustion, in order to produce the heat energy; this is done by setting up the heating systems that use the

regenerative energy, non-pollutant, including the replacing or completing the classical heating systems. Since 2011, the Green House program was also extended to public and cultural institutions. The program received a budget of 110 million lei and almost 17,500 requests were submitted.

We will further analyze the micro level perspective from the standpoint of the individual consumer. The consumer's behavior should be related to the governmental policies and strategies expressed by different programs of Rabla type.

The decision of replacing the old GDGs (timing, selection, the planning of perspectives for maintenance) is very complex and is highly influenced by economic factors, while the concern for the environment is strictly limited to the consumption of energy resources, and the dynamics of taxes (these can signify an essential chain link in changing the attitude towards the environment).

3. A critical analysis of conventional economic models dedicated to durable goods replacement

Recently developed studies in our country have revealed an increased interest for energy efficient home programs, a heightened interest for purchasing durable goods and there are chances to stabilize the declining purchase of new vehicles. People's interest in reducing the cost of utilities is a normal response to the ascending trend in the cost of energy products. The decision regarding energy efficiency improvements investments depends on the geographical location, the surface/ volume of the living space, given the budget restrictions brought about by the lowering of their income. Depending on the energy factors mentioned, the recovery of the investment (which amounts to 2-10 average salaries) could be achieved within 2-3 years. The analysis of the energy efficiency need could be conducted either through Cost-Benefit Analysis (CBA) which takes into account the discounted cash flow (DCF), or through real option analysis (ROA). The decision regarding the generalized durable goods (appliances, vehicles) is defined by considering the increased running costs. The increased cost of resources also lead to the dramatic increase of the operating and maintenance costs, depending on the active life of the goods and the shape of the equivalent uniform costs curve is also influenced with direct impact on the decision of replacement. Even though the lifespan of these durable goods is reduced, there is also a tendency to reduce the residual value influenced by technological progress (the emergence of new models on the market), and the increased weight of the repair costs.

The analysis of the choice to replace durable goods is generally considered strictly from an economic point of view without taking into account the ecological aspects. Nevertheless, the increased weight of the effective use costs as a consequence of the increased costs of energy resources raises the interest for the issues related to the replacement of these goods. We will further introduce several replacement models for supporting the decision to replace the still active durable goods. These models are based on certain simplifying hypotheses and do not incorporate the environmental aspects. This type of problem uses in general the deterministic models:

$$E = E(X_i, Y_j) \tag{1}$$

which relates the performances (E) to the values of control variables (X_i) and uncontrollable variables (Y_j). Assumptions are made for measuring the performances based on the following objective functions: the cost/ return during the life cycle; the average cost/ return per year, the present value of the discounted future costs.

The qualitative model for economic replacement problem (Grant, 1950) is based on the following assumptions: more efficient equipment is introduced before replacement; the value of money is constant over the entire cycle; the operating cost is non-decreasing. In this simple model, the assumptions do not take into account the increased consumption and maintenance, important aspects in the context of the increased price of energy resources.

Dean (1951) argues that the return on investment (ROI) should be used in the selection of investment. The cost for current equipment (operating costs + depreciation) is expressed as a function of equipment age. The decision for replacement occurs when these costs equal the average cost per year of the new equipment plus the annual return on the capital outlay less the salvage value of the old machine.

Sandyford, Bernolthz, and Shelson (1956) assumed different analytic forms for the cost functions. The idea is to consider arbitrary values for the annual cost and to use iterative numerical procedures for determining the economic life of equipment. The performance is expressed by the average annual cost over the replacement interval and the aim is to minimize the average annual cost (acquisition cost less salvage value plus maintenance costs).

Terborgh (1949) suggested a model of replacement based on the following assumptions: there is a linear operating cost function that is time dependent with known constant parameter values. The relation for the combined cost per year is:

$$E = \frac{(n-1)}{2}c + \left[\frac{C-S}{2}c + \frac{r}{2}(C-S)\right] \tag{2}$$

where c is the rate of cost accumulation, C is the acquisition cost, S is the salvage cost, r is the rate of return of investment, and n is the age of the generalized durable goods. The first term in the brackets is the average capital cost per year and the second term is the average yearly cost of money over the period computed by taking the cost of (C - S) for a period of ($n - j$) years (in which payment are made annually) plus the cost of borrowing.

Fether and Goodman (1957) proposed an electric analogy of the equipment replacement model based on Terborgh's cost minimization model.

Clapham (1957) proposed a cost minimization model that neglects opportunities for alternative investments. The economic life of equipment is determined by minimizing the average annual sum of capital depreciation and maintenance costs K_t.

$$K_t = \frac{C}{2} + \frac{1}{t}\int_0^t f(x)dt \tag{3}$$

Orrenstein's three cost model (1956) is based on the assumptions that the economic life is independent of rate of return and there is an equal depreciation. There are three costs: the

acquisition cost (C), the annual rate of return on capital (r), and the operating cost (R_t). The life cycle in the vision of Orreistein is defined as one that minimizes the expression:

$$E = \frac{C}{t} + r\frac{C}{2} + \left[R_t + \frac{t(t+1)}{2} d \right] \frac{1}{t}$$

$$\frac{d_E}{d_t} = -\frac{C}{t^2} + \frac{d}{2} = 0$$

$$t_0 = \sqrt{\frac{2C}{d}} \tag{4}$$

The economic life is when the average increase in operating cost is equal to the annual depreciation value of the GDG.

Rilas (1957) studied the alternative policies for replacement on a basis of discounted value technique of all future costs of each alternative and proposed a discrete model for replacement.

The Elmagharby's model (1958) is a stochastic model that considers the uncertain demand in order to obtain an optimal utility of the replacement action.

Barber (1958) proposed probabilistic functions for returns to measure the feasibility of new acquisition. The decision for selection will be take on the basis of comparison between the expected return with the rate of return on other acquisition.

Nair (1995) proposed a solution for the replacement decision in the context of changing technology based on a Markov process. The new technology will produce a smaller environmental burden and the interest is to maximize the expected discounted reward over a finite horizon. In Sloan (2011) are proposed three extensions to Nair's model: the incorporation on environmental costs; the possibility of penalties; the optimal action is determined for multiple periods by solving the problem on a rolling basis.

A different analysis method used is based on the lowest total costs point. The total cost curve is resulted from the maintenance costs and ownership costs. The interest is to obtain the period in which the GDG (generalized durable goods) will be operating at its optimal total costs. After the lowest total costs point the costs will rise and there may be reason to expect the occurrence of unexpected malfunctions which will trigger even higher repair costs. The advantages of this method are the following: it eliminates the subjective approaches; it permits predictions of the trends of costs enabling extrapolations useful in forecasting procedures, very important in budgeting and it optimizes the general maintenance process.

4. A procedure of analyzing the Romanian durable goods consumers

The main focus of this procedure is to offer a better understanding of the new philosophy of Romanian consumers considering the following assumptions: the severe budgetary restrictions still exist; there is still a high inflation. This is transferred into a high updating factor, where conservatism towards the new technologies has occurred. These haven't been enough understood or tested, and an inertia of governmental level in significant

modification of fees related to environment with direct impact over the consumer could be noticed.

The following equation is related to the decision to replace a five year old GDG which has a lifespan of 10 years. The new GDG is very efficient (low operating and maintenance costs, it is also eco-friendly), but it has a high initial capital cost. In order to simplify this problem, we will consider a *a* constant discount factor. The present value of expenditure for the life cycle of a GDG is express by:

$$P_n = C + \frac{R_1}{1+a} + \frac{R_2}{(1+a)^2} + \ldots - S \tag{5}$$

where P_n is the present value of expenditure on the entire life cycle.

In order to compare the two alternatives, we will express the present value of expenditure on the entire life cycle for both situations:

$$P_n^A = C^A + \frac{R_1^A}{1+a} + \ldots + \frac{R_j^A}{(1+a)^j} - S^A \tag{6}$$

$$P_n^B = C^B + \frac{R_1^B}{1+a} + \ldots + \frac{R_j^B}{(1+a)^j} - S^B \tag{7}$$

where:

C^A – the purchase price of the GDG,

C^B – the market value for an old GDG,

S^A, S^B – salvage value depends on the disposal moment,

R_j^A – running costs for new GDG,

R_j^B – running costs for old GDG,

a - discounted factor,

j - time counter,

with the following conditions:

$$(C^A)', (C^B)' < 0 \tag{8}$$

$(C^A)''$, $(C^B)'' < 0$

$$(R_j^A) > 0 \tag{9}$$

$(R_j^B) > 0$.

The condition(s) are related to typical depreciation of GDG (new or old) which in accordance with methodologies for determining the insurance value are decreasing

functions with negative second derivative. Regarding the restrictions 9, they show the increasing operating costs of GDG (new or old) over time, as a function with positive second derivative.

The depreciation in the case A is higher more than case B. Thus, always

$$\left(C^A - S^A\right) > \left(C^B - S^B\right).$$

Figure no. 1 illustrates the curves $C^A(t)$ and $C^B(t)$, highlighting S^A and S^B.

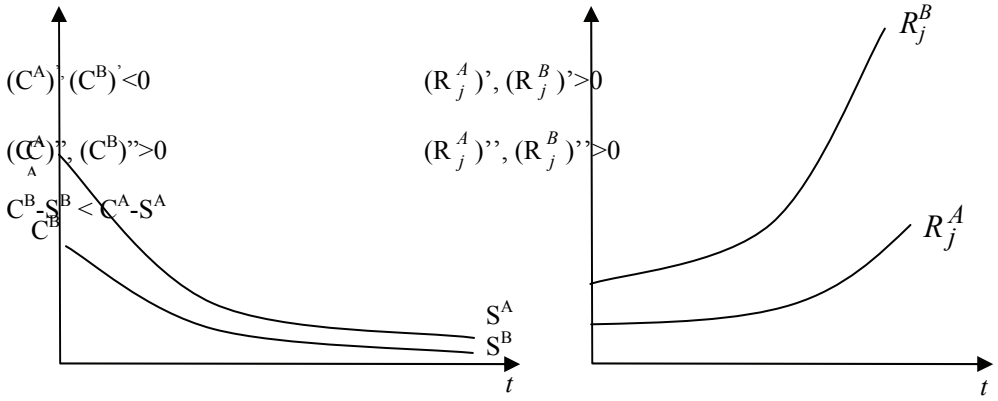

Figure no. 1: $C^A(t)$ $C^B(t)$; $R_j^A(t)$, $R_j^B(t)$ **Curves**

From the economic disposal condition which is $P_n^A \le P_n^B$, it results that

$$\left(C^A - S^A\right) + \sum_0^j \frac{R_j^A}{(1+a)^j} \le \left(C^B - S^B\right) + \sum_{t_B}^{t_B+j} \frac{R_j^B}{(1+a)^j}. \tag{10}$$

a relationship that underlines the fact that the difference between the two depreciations must compensate the difference between the values of the updated flows of the running costs. The interpretation is as follows: the rise of R_j^B well over R_j^A supports the decision to replace the GDG, but the increased updating factor supports the conservative decision of not replacing the GDG. The impact of a Rabla program with a cassation premium favors the replacement decision and may be an incentive for consumers of eco-friendly products. In this case, C^A becomes C^A*, i.e. $C^A* = C^A$ – cassation premium, thus stimulating the consumer in the replacement decision. The relation (10) is rewritten and becomes:

$$\left(C^A - S^A\right) - \left(C^B - S^B\right) \le \sum_{t_B}^{t_B+j} \frac{R_j^B}{(1+a)^j} - \sum_0^j \frac{R_j^A}{(1+a)^j} \tag{11}$$

Based on this relation is possible also to underline the impact of moral usage of durable goods. In this case let the vector $\{u_j\}$ of the composite factors this represents the effective value of usage. The vector $\{u_j\}$ respects the following conditions:

$$u_j^{'} > 0$$

$$u_j^{''} > 0$$

In this case, in (11), the difference of depreciation in the left hand side will be reduced according to the growth dynamics of $\{u_j\}$.

$$\prod_{t=0}^{j}(1+u_j)\left(C^A - S^A\right) - \prod_{t=t_B}^{t_b+j}\left(C^B - S^B\right) \leq \sum_{t=t_B}^{t_B+j}\frac{R_j^B}{(1+a)^j} - \sum_{t=0}^{j}\frac{R_j^A}{(1+a)^j} \quad (12)$$

One of the levers used by the governing bodies to influence the consumer decision is to increase taxes for old GDG and respectively increase the R_j^B flows, a lever usually applied in environmental policies. Romanian consumers must take into account the type of financing (duration, interest rate). Even though the global crisis has had a severe impact on the sale of GDG, causing their decrease, the desire to purchase new goods is still maintained but is limited by the lending policies and, particularly, very high interest rates.

A typical example for Romanian auto market from is given by the comparison between a new car - A (C^A = 8000 Euro, S^A = 2000 Euro) and 2 old cars – B_1 şi B_2, 3 years old (t_1=3 years, t_2=5) ($C^B{}_1$ = 4000, $S^B{}_1$ = 1500, $C^B{}_2$ = 2000, $S^B{}_2$ =900). Comparative analysis is performed within a time horizon of 5 years considering various discounted factors (a=0; a=0,05; a = 0,10).

Based on data provided by several independent service stations we have identified the following average annual operating costs (table no. 1):

Table no. 1: Average annual operating costs for 10 years

t	1	2	3	4	5	6	7	8	9	10
R_t	500	700	900	1100	1300	1550	1700	2000	2350	2750

The purpose of this analysis is to test the relation (11) for various values of updating factor. For each pair of new car - old car (with t = 3 years old), new car-old car (with t = 5 years old) (table no. 2).

Based on this example it is noted the crucial importance of discounted factor with values greater than 0.05, according to financing in Romania.

Table no. 2: The application of the relationship (11) for different values of discounted factors

A	$(C^A - S^A) - (C^B - S^B)$		$\sum \frac{R_j^A}{(1+a)^j} - \sum \frac{R_j^B}{(1+a)^j}$	Observații
0	B_1	3500	3150	MS>MD, nu se justifica inlocuirea
	B_2	4900	5850	MS<MD, se justifica inlocuirea
0,05	B_1	3500	2730	MS>MD, nu se justifica inlocuirea
	B_2	4900	5100	MS<MD, se justifica inlocuirea
0,10	B_1	3500	2402,5	MS>MD, nu se justifica inlocuirea
	B_2	4900	4513	MS>MD, nu se justifica inlocuirea

Conclusion

The GDG consumer decision has been analyses under the present circumstances of recovery after the global crisis, based on simple, but intuitive models.

Based on the critical analysis of the economic models to substantiate the decision of replacing durable goods we have developed a framework to analyze the Romanian consumer behaviour based on an multi-annual analysis highlighting the discounted factor which appears as a decisive element in the current context of our country (high rates of interest, extended duration of use, insufficient training for understanding organic products with high initial cost) in which the replacement decisions are generally based on the method of financing under severe budget restrictions and do not take into account, only in small measure, the maintenance costs or the dynamic of energy prices evolution.

The decision is mainly based on strictly economic factors, while the concern for the environment is strictly limited to the consumption of energy resources. The main difficulties in analyzing the optimal replacement moment are related to the valuation of depreciation and the interest to maintain the old GDG, on the basis of its original costs (rather than its present real value) and the valuation of savings from replacement (we have taken into account the hypothesis of an increased price of energy resources).

Government structures advocate programs such as Rabla program that facilitate the purchase of new vehicles with discounts that would support a replacement decision. Another incentive would consist in increasing the taxes for old and polluting GDG. The importance of the discounted factor has been underlined since the present tendency in Romania is towards a conservatory attitude related to replacement.

There are numerous reasons for preserving the present state of conservatism, justified by the high uncertainty associated with predicting the expenses of a new GDG, the limitations on founds available for purchasing new GDG (in the context of no limitation and funds for maintaining the old GDG especially in relative high inflation), the uncertainty concerning

the future technological improvements (surprisingly, the wait and see attitude could be favored by technological progress), the reluctance to be a pioneer in purchasing new technologies (electrical or hybrid vehicles).

Relationship of comparison (11) which is performed under the conditions (8) and (9) could be revised considering a factor of technological progress to reveal the trend of reduction in prices of the new clean/green technologies, as well as a price index of energy resources in the context of Europe-wide standardization of the environmentally responsible behaviour. In this case it is proposed the relationship for comparisons (12) which take into account the reduction of the value of….via the reduction of the differentials of depreciation.

In the case of a technological boom, the model should emphasize the acceleration of depreciation. Romanian consumers will join this trend more or less, again being required a comparative analysis to include also elements inspired by human psychology.

The impact of globalization and consumerism on ecological behaviour in Romania can be described through the following key elements: technological factor (opportunities to accelerate the technology transfer in low roughness market conditions), marketing factor (in emerging markets can be observed an increasingly desire to be fashionable internationally) and the educational factor.

Encouraging and orienting consumers towards the green zone is a complex process that must take into account present circumstances whereas education should also be a key factor.

Future work should be more focused in understanding the matching between the macro stimulation policies and the consumer behavior which should incorporate the new expectations regarding the trends in the evolution of products toward friendly environment perspective and the education of population in this concern.

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